

SOME NEW LEPIDOPTERA FROM OBI.

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THE very little explored island of Obi major (Ombira) was visited by Mr. William Doherty in September 1897. The collection of Lepidoptera made at a place called Laiwini on Obi, though not very large, is of high interest, as Obi is geographically intermediate between the Southern and Northern Moluccas, which, with comparatively very few exceptions, are inhabited by different well marked subspecies, and shows that the Lepidoptera of Obi are much more similar to those of Batjan, Ternate, and Halmaheira than to those of Amboina, Ceram, and Buru, a good many forms being even identical with those from the Northern Moluccas.

PAPILIONIDÆ.

1. *Papilio sarpedon crudus* subsp. nov.

♂. Somewhat smaller than *antheson*. *Upperside*: band comparatively wider than in *antheson*, measuring at vein 1^b of forewing from 10 mm. (*type*) to 8 mm.; submarginal spots of hindwing somewhat less arched than in the Northern Moluccan form *dodingensis* Rothsch. *Underside*: forewing in both individuals with a minute dot before vein 8 at the discal side of the band; hindwing with the red spots very prominent; the black interspace between the costal red mark and the median band narrower than the red mark; a red spot between veins 6 and 7 as in *dodingensis*.

Two males.

2. *Papilio aristeus bifax* subsp. nov.

♂. *Upperside*: forewing nearly as in *parmatas*, but the black band upon the discocellulars still more triangular: the black middle band of the cell does not extend beyond the median nervure, as it does in *aristeus*, the submedian band tapering behind. Hindwing, discal black band narrow, densely overshadowed with white in cell, its anterior portion ill-defined; black marginal region in width midway between *aristeus* and *parmatas*, but posteriorly as black as in *aristeus*. Underside of the dark colour of *aristeus*; hindwing as in this form, but white discal area of forewing wider.

This Obi form is very interesting, as it combines the characters of *aristeus* and *parmatas*.

One male only.

3. *Papilio tydeus obiensis* subsp. nov.

♂. *Upperside*: band of forewing wider, especially the two spots between veins 5 and 7; the first patch of the band of the hindwing before vein 7 narrower basally, the black basal area penetrating well beyond the subcostal nervure, sometimes nearly halfway to vein 8. *Underside*: band of forewing broader, and orange spots of hindwing, especially the posterior ones, much heavier, than in *tydeus*.

♀. *Upperside*: forewing, the yellowish or creamy white area more extended, the spots between veins 6 and 9 much more clearly defined; hindwing, the submarginal orange spots heavier, in the pale specimens densely shaded with black scaling. *Underside*: forewing, white patch in cell much larger, extending far below origin of vein 2; hindwing, upper patch of white discal area a long triangle, reaching below origin of nervule 7, sometimes the cell all white; submarginal orange spots larger than in *tydeus*.

A long series of both sexes.

4. *Papilio fuscus ombiranus* subsp. nov.

♂♀. *Upperside*: forewing with a large well-defined creamy white subapical patch, expanding between veins 10 and 5, and generally extending down to the inner margin as a more or less thin interrupted band. Creamy white area varying in extent, reaching in every specimen at least to vein 2, always relatively wider than in the Southern Moluccan *fuscus*; the second patch, between veins 6 and 7, always considerably longer than the black marginal area is wide between the same veins; the buffish grey scaling outside the discal patch sparser than in *fuscus* from Amboina and Ceram; usually no orange submarginal spots in ♂♂, except a very thin one at anal angle (*type*), which is absent only from an aberrant ♂ without white patch on forewing; one ♂ and the ♀♀ have from two to five submarginal spots.

Underside: the white patch of forewing smaller than above. Hindwing, discal blue spots more distal than either in the North or South Moluccan *fuscus*; discal white patch very variable in both sexes, often overshadowed with black scales (*type*), or the white scales even nearly all absent.

A very long series.

5. *Papilio ulysses dohertius* subsp. nov.

♂. *Upperside*: forewing like *telegonus* from the Northern Moluccas, but the hairy stripe upon vein 4 a little less heavy, nearly separated from the next one; the stripes upon veins 5 to 7 well isolated. Hindwing nearly as in *autolyceus* from New Guinea, the blue area being much more extended than in *telegonus*; the area deeply incised at the veins, and prolonged along the hinder side of veins 5 and 6, as is the case sometimes in *autolyceus*; no blue submarginal streaks as in *telegonus*.

Underside: deeper in colour than in either *telegonus* or *autolyceus*; forewing with grey patch in cell, outer discal grey scaling as in *telegonus*. Discal grey scaling of hindwing scattered as in *autolyceus*; submarginal yellow spots as in *telegonus*, the upper one somewhat larger; submarginal pale brown area narrower than in that subspecies.

Three males only.

GEOMETRIDAE.

6. *Milonia obiensis* sp. nov.

♂♀. Wings above glossy cyanine blue. Forewing with a scarlet band which is narrower than in *M. glauca* and more basal, its outer edge being 4 mm. distant from the extremity of vein 1^b, varying in width individually from $2\frac{1}{3}$ to $4\frac{1}{2}$ mm., in one individual stopping at the subcostal nervure. Underside deep blue in side light;